

Amendments to the Claims:

1. (Original): A recombinant porcine adenovirus capable of expressing DNA of interest, said DNA of interest being stably integrated into an appropriate site of said recombinant porcine adenovirus genome.
2. (Original): A recombinant vector including a recombinant porcine adenovirus stably incorporating, and capable of expressing DNA of interest.
3. (Cancelled)
4. (Previously amended): A recombinant vector as claimed in claim 2 wherein said recombinant porcine adenovirus includes a live porcine adenovirus having virion structural proteins unchanged from those in a native porcine adenovirus from which said recombinant porcine adenovirus is derived.
- 5-24. (Cancelled)
25. (Previously amended): A recombinant vector as claimed in claim 2 wherein said recombinant porcine adenovirus is selected from the group consisting of serotypes 3 and 4.
26. (Previously amended): A recombinant vector as claimed in claim 2 wherein DNA of interest is stably integrated into the non-essential regions of the porcine adenovirus genome.
27. (Previously amended): A recombinant vector as claimed in claim 2 wherein DNA of interest is stably integrated into the right hand end of the genome.
28. (Original): A recombinant vector as claimed in claim 27 wherein DNA of interest is stably integrated into the right hand end of the genome at map units 97 to 99.5.
29. (Previously amended): A recombinant vector as claimed in claim 2 wherein DNA of interest is stably integrated into the E3 region of the genome.

Excluded.

30. (Original): A recombinant vector as claimed in claim 29 wherein DNA of interest is stably integrated into the E3 region of the genome at map units 81-84.

31. (Currently amended): A method of producing a recombinant porcine adenovirus vector for use as a vaccine including inserting into a non-essential region of a porcine adenovirus genome, a at least one heterologous nucleotide sequence in association with an effective promoter sequence to ~~form a recombinant adenovirus vector greater than 105% the size of wild type adenovirus.~~

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32. (Original): A method as claimed in claim 31 wherein prior to insertion of said heterologous nucleotide sequence, a restriction enzyme site is inserted into said non-essential region of said porcine adenovirus genome.

33-38. (Cancelled)

39. (Currently amended): A method of vaccination of pigs against disease including administering to said pigs a first recombinant porcine adenovirus vector stably incorporating, and capable of expression of a heterologous nucleotide sequence encoding ~~an~~ at least one antigenic determinant of said disease against which vaccination is desired; ~~said adenovirus having a size greater than 105% the size of wild type adenovirus.~~

40. (Currently amended): A method as claimed in claim 39 including administering to said pig a second porcine adenovirus vector including at least one heterologous nucleotide sequence which differs from ~~said at least one~~ a heterologous nucleotide sequence incorporated in said first recombinant porcine adenovirus vector.

41. (Original): A method as claimed in claim 40 wherein said second porcine adenovirus vector comprises a serotype different to that of said first porcine adenovirus vector.

42. (Currently amended): A method as claimed in claim ~~39~~ 40 wherein said second porcine adenovirus vector incorporates, and is capable of expression of at least one heterologous nucleotide sequence encoding an immunopotentiating molecule.

43. (Previously added): A recombinant vector as claimed in claim 2 wherein said recombinant porcine adenovirus is capable of expression of a heterologous nucleotide sequence.

44. (Previously added): A recombinant vector as claimed in claim 43 wherein said heterologous nucleotide sequence is capable of expression as an antigenic polypeptide.
45. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence is capable of expression as an immuno-potentiating molecule.
46. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes antigenic determinants of infectious agents causing intestinal diseases in pigs.
47. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes antigenic determinants of infectious agents causing respiratory diseases in pigs.
48. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of pseudorabies virus (Aujeszky's disease virus).
49. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of glycoprotein D of pseudorabies virus.
50. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine respiratory and reproductive syndrome virus (PRRSV).
51. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of Hog cholera virus.
52. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine parvovirus.

Excluded

53. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine coronavirus.
54. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine rotavirus.
55. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of porcine parainfluenza virus.
56. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes an antigenic determinant of *Mycoplasma hyopneumonia*.
57. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes FLT-3 ligand.
58. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes interleukin-3 (IL-3).
59. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes porcine interleukin-4 (IL-4).
60. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes gamma interferon.
61. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes porcine granulocyte macrophage colony stimulating factor (GM-CSF).
62. (Previously added): A recombinant vector as claimed in claim 44 wherein said heterologous nucleotide sequence encodes porcine granulocyte colony stimulating factor (G-CSF).

Excluded.